UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,820	05/03/2001	Vladimir Matena	SUN1P294/P5175	7908

22434   7590   06/03/2004

BEYER WEAVER & THOMAS LLP
P.O. BOX 778
BERKELEY, CA 94704-0778

EXAMINER
CAO, DIEM K

ART UNIT	PAPER NUMBER
2126	

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _03 May 2001_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.

　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _03 May 2001_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　a)☐ All   b)☐ Some * c)☐ None of:

　　1.☐ Certified copies of the priority documents have been received.

　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _10/20/2003_.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-20 are presented for examination.

2.   The cross reference related to the application cited in the specification must be updated

(i.e. update the relevant status, with PTO serial numbers or patent numbers where appropriate, on

page 1, line 17).

Drawings

3.   Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that

which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected

drawings are required in reply to the Office action to avoid abandonment of the application. The

objection to the drawings will not be held in abeyance.

Claim Objections

4.   Claims 8 and 18 are objected to because of the following informalities: the claims cite "to

<u>main</u> a state associated with the state machine" on lines 2-3. Examiner interprets cite "to

<u>maintain</u> a state associated with the state machine" for examining purpose. Appropriate

correction is required.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-5, 7-15, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Raj (Enterprise JavaBeans) in view of DeNap et al. (U.S. 6,490,273 B1).

7.   **As to claim 1**, Raj teaches an entity bean class (implementing the enterprise bean; part 5,

page 1), a home interface associated with the entity bean class (the EJB home interface; part 5,

pages 1-2), the home interface being arranged to create, find, and remove entity objects (the

home interface has methods that define how the entity bean is crated and located in its container;

part 5, pages 1-2, section "Define your EJB Home Interface" and methods for locating, creating,

and removing instances of EJB classes are defined in the home interface; part 2, page 2, section

"the Home Interface and Home Object"), a remote interface associated with the entity bean class

(remote interface ... instances of BooksBean; part 5, page 2, section "Define Your EJB Remote

Interface"), the remote interface being arranged to change the state of the bean in response to the

input events (The remote interface lists the business methods available for the enterprise bean;

part 2, page 2, section "The Remote Interface and EJB Object"), and an entity object associated

with the entity bean class (bean instances; part 2, page 2, section "EJB Containers").

8.   However, Raj does not teach the remote interface being arranged to driver the state

machine, and the entity object being arranged to represent an individual state machine. DeNap

teaches port objects are state machines (col. 16, lines 28-30), the objects are implemented in C++

code, there are multiple states associated with the state machine (Idle state, dial tone state; col.

16, lines 30-33 and ring state; col. 17, lines 1-3) and upon receiving invocations, the port object

changes its states (When receiving a call … ring state; col. 17, lines 1-4 and The event object

provides … dial tone state; col. 17, lines 61-65 and the controller object … ringback state; col.

18, lines 30-33).

9.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teaching of Raj and DeNap because by implementing the state machine

as a software object, it could be executed by a multi-thread processing system, and could be

stored on a server and download to the users in a distributed system.

10.   **As to claim 2**, Raj teaches the entity bean class, the entity object, the home interface, and

the remote interface are parts of an entity bean (EJB remote interface, EJB home interface, EJB

class; part 5, page 1 and bean instances; part 2, page 2, section "EJB Containers").

11.   **As to claim 3**, Raj teaches the entity bean is an enterprise bean (Enterprise beans …

entity beans; part 3, section Entity and Session Beans, page 3).

12.   **As to claim 4**, Raj teaches the enterprise bean is an Enterprise JavaBean (The Enterprise

JavaBean; part 2, section "The Enterprise JavaBean").

13.   **As to claim 5**, Raj teaches the entity bean is arrange to be deployed in a bean container

that is arranged to invoke instances of the entity bean class in response to invocations to the

methods of the remote interface (The EJB container manages one or more EJB classes ... invoke

the bean's methods; part 2, page 2, section "EJB Containers").

14.   **As to claim 7**, Raj as modified teaches the entity bean uses container-managed

persistence to maintain a state associated with the state machine (Container-managed

persistence; part 3, page 4, section "Entity Beans").

15.   **As to claim 8**, Raj as modified teaches the entity bean uses bean-managed persistence to

maintain a state associated with the state machine (Bean-managed persistence; part 3, page 4,

section "Entity Beans").

16.   **As to claim 9**, Raj teaches the bean container is arranged to receive input events to the

entity bean and to dispatch the received input events to the methods of the remote interface (An

EJB container acts as ... invoke the bean's methods; part 2, page 2, section "EJB Container").

17.   **As to claim 10**, Raj as modified teaches the remote interface is arranged to define a

method for an input event to which the state machine responds (The remote interface lists the

business methods available for the enterprise bean; part 2, page 2, section "The Remote Interface

and EJB Object").

18.   **As to method claim 11**, it corresponds to the state machine claim of claim 1.

19.   **As to claims 12-15**, see rejections of claims 2-5 above.

20.   **As to claims 17-20**, see rejections of claims 7-10 above.

21.   Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raj

(Enterprise JavaBeans) in view of DeNap et al. (U.S. 6,490,273 B1) further in view of Shoffner

(Write a session EJB).

22.   **As to claims 6 and 16**, Raj does not explicitly teach the bean container is further

arranged to implement a timeout. Shoffner teaches the bean container is further arranged to

implement a timeout (the container ... after some timeout period; page 7). It would have been

obvious to one of ordinary skill in the art at the time the invention was made to combine the

teaching of Raj and Shoffner because it provides a method for container to remove the beans

after a period of time without being used.

Conclusion

23.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

   -   Havey teaches "E-State: An Enterprise State Machine – A framework inspired by

       ROOM".

   -   Gary et al. teaches "Distributed Architectures for Process Component Support".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diem K Cao whose telephone number is (703) 305-5220. The examiner can normally be reached on Monday - Thursday, 9:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Diem Cao

MENG-AI T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100